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Goddard Space Flight Center



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Program To Produce Horizontal Stereographic Print Maps From NIMBUS HRIR Data

The problem:

To display NIMBUS High Resolution Infrared Radiometer data in an optimum form for experimental usage.

The solution:

This program produces three maps for the NIMBUS experimental data:

1. Temperature — Average "blackbody" temperature in degrees kelvin.
2. Population — The number of measurements used in the temperature averaging.
3. Below Threshold — The number of measurements that were below the radiometers threshold.

How it's done:

The program has two functions — processing the data and preparing print maps from them. The temperature measurements are modified in the following two ways before being used:

1. Each swath is examined for measurements that are flagged as "below threshold".
2. Each swath is then passed through McMillens filter to remove the 200-Hz telemetry noise component.

The output from several swaths forms the input for the maps. The program reads-in this information as well as map center, scaling factor, and time intervals, and translates the data into an output array for printing.

This program has potential application to any of a wide range of ecological and environmental studies such as sea and air sampling, pollution, earth resources, etc.

Notes:

1. This program is written in FORTRAN IV (54%) and ASSEMBLER (46%) for use on the IBM-360 computer and 1403 printer.
2. Inquiries concerning this program should be directed to:

COSMIC
112 Barrow Hall
University of Georgia
Athens, Georgia 30601
Reference: GSC-11397

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Programming Methods, Inc.
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